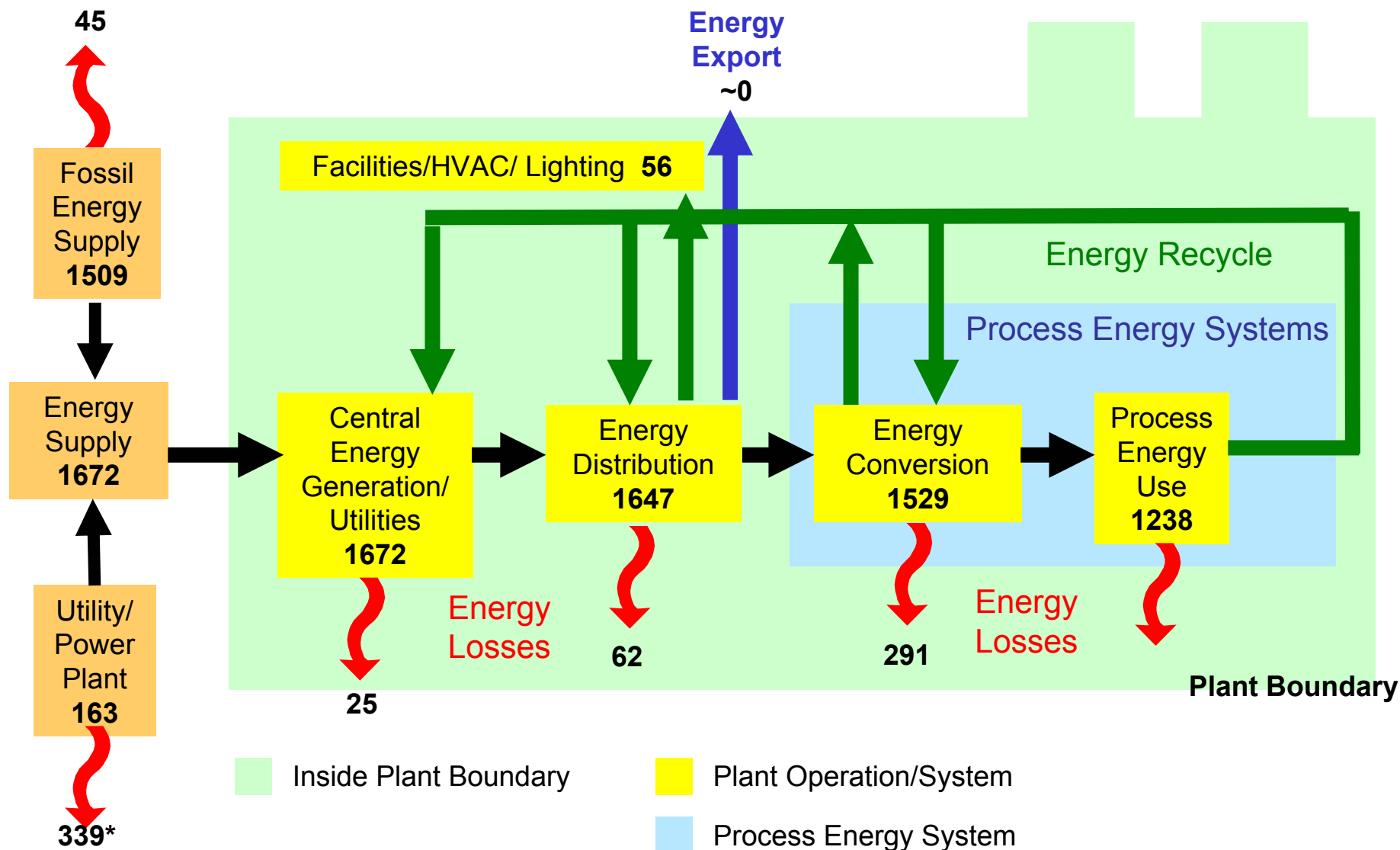


NAICS 33111 Total Steel Industry Energy Input: 2056 Trillion Btu*



* Does not include most of the inefficiencies on the electric grid caused by steelmaking highly varying loads

NAICS 33111 Total Steel Industry Energy Input: 2056 Trillion Btu*

Energy Export ~0

Electricity

Facilities/HVAC/Lighting 56

Process Energy Systems

Recycle Energy

Recycle Energy
By-product fuels and
feedstocks, heat

Steam,
heat

Energy Conversion
1529

Process
Energy Use
1238

Central Energy
Generation/
Utilities 1672

Energy
Distribution
1647

- Process Heating (1392)
(steam systems, coke ovens, blast
furnaces, reheat furnaces)
- Process Cooling/
Refrigeration (4)
- Electrochemical (5)
- Machine Drives (116)
(pumps, compressors, fans, blowers,
conveyors, grinders)
- Other (12)

- Cokemaking
- Ironmaking
- Steelmaking
- Ladle refining
- Casting
- Reheating
- Forming
- Finishing
- Waste Handling

- Steam Plant (77)
- Power Generation
(18)
- Direct Fuel Supply
(1389)
- Purchased
Electricity (163)

- Steam Piping
- Fuel Piping
- Transmission Lines

Energy Losses

Energy Losses

Losses in boilers and
electricity generation
losses 25

Losses in pipes, valves,
traps, electrical
transmission lines 62

Losses due to equipment
inefficiency (motors,
mechanical drive, waste
heat) 291

Losses from waste
heat, by-products
TBD

Steel Plant Boundary

Distribution
losses 45

Fossil
Energy
Supply
1509

Energy
Supply
1672

- Fuels
- Purchased
Electricity
and Steam

Utility/
Power
Plant
163

Electricity
generation and
transmission
losses 339*

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